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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,523	12/20/2001	Melaine Klasen-Memmer	Merck 2331	2849

23599 7590 03/18/2004

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EXAMINER
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WU, SHEAN CHIU

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 03/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/022,523

Applicant(s)

KLASEN-MEMMER ET AL.

Examiner

Shean C Wu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

1. Applicant's declaration filed 1/15/04 in response to the final Office Action is persuasive; therefore, the finality of that action is withdrawn. However, the newly discovered reference to Yanai et al. (US 6,395,353) is found. Rejections based on the newly cited reference follow.

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5, 7-11, 13-14, 18-20 and 22 are rejected under 35 U.S.C. 102(a) as being anticipated by Yanai et al. (US 6,395,353).

The reference composition has a suitable optical anisotropy, a low viscosity, a largely negative dielectric constant and a broad nematic liquid crystal phase range while satisfying various properties required for liquid crystal compositions for active matrix-LCD and some modes such as IPS and DS (see col. 1, line 42 and col. 13, line 4). The compounds of the present formulae I-1 and I-4 are disclosed in formulae II-21, II-22, II-26, II-39, II-35 and II-41. Other suitable compounds for the reference composition are disclosed from col. 10 to col. 11. The reference Examples 6-7, 9, 12, 14, 17-18, 21, 23

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and 25 anticipate the present invention, particularly Example 23. The Example 23 comprises the present components A (formula I-1), B (formula II) and C (formula IV). Therefore, the reference anticipates the claimed invention.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yanai et al. (US 6,395,353) as applied to claims above, and further in view of Pausch et al. (US 6,027,665).

Yanai differs from the claim in that the claim comprises an additional compound represented by the present formula III. Because the compound of formula III used in IPS display, in which the pixels are addressed by means of an active matrix is known in the art (see col. 2 to col. 5 of Pausch et al. '665), it would have been obvious to those skilled in the art to those skilled in the art to admix the compound with Yanai composition to arrive at the claimed invention.

6. Claims 6 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanai et al. (US 6,395,353) as applied to claims above, and further in view of Sasada et al. (US 6,548,126).

Yanai differs from the claim in that the claim comprises an additional compound represented by the present formula V. Yanai differs from the claims in that the claims comprise an additional component D represented by the formula V. Sasada teaches that the liquid crystalline compounds have 2,3-dihalogenophenylene moiety and are expressed by formula (1). These liquid crystalline compounds having a negative and extremely large dielectric anisotropy value and a small optical anisotropy value at the same time are useful for IPS mode. See col. 1, lines 47-57 of US '126. The characteristic of this mode is that various liquid crystal compositions can be utilized regardless of positive or negative in the dielectric anisotropy value. Sasada further discloses that the compounds expressed by formula (5) and (6) are useful for the liquid crystal compositions, because their dielectric anisotropy values are positive and the values are extremely large. These compounds are used as a component of the compositions especially with an aim to lower threshold voltage. See col. 5 and Examples 19 and 20. Because the compounds of the present formula V are known in the art can improve the liquid crystal, it would have been obvious to those skilled in the art to apply these compounds in the Yanai's composition and display device thereof to arrive at the claimed invention.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yanai et al. (US 6,395,353) as applied to claims above, and further in view of Leenhouts et al. (US 5,883,686).

Yanai differs from the claim in that claim comprises a three-pole switching element. Leenhouts teaches an active matrix display device with three-pole switching elements such as TFTs with a smaller difference in charge current at different picture

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content. Because the three-pole switching element used in active matrix is known in the art (see lines 5-19 on col. 1 of '686), it would have been obvious to those skilled in the art to apply three-pole switching element in the reference active matrix display device (Yanai) to arrive at the claimed invention.

8. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

9. It is noted that there is a potential interference of the present invention with US 6,395,353.

### ***Response to Arguments***

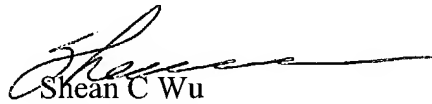
10. Applicant's arguments (see paper filed 1/15/04) with respect to claims 1-11 and 13-22 have been fully considered and are persuasive. See the declaration filed 1/15/04. Therefore, the previous rejection has been withdrawn. However, upon further consideration, new grounds of rejection are made in view of Yanai (US 6,395,353). See the above sections 2-7.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shean C Wu whose telephone number is 571-272-1393. The examiner can normally be reached on 9-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Shean C Wu  
Primary Examiner  
Art Unit 1756

scw